

14(original). The method of Claim 9 wherein the graphite particles are dried in a centrifuge.

15(original). The method of Claims 1 or 9 further comprising providing a plating barrel, placing the graphite particles in the plating barrel prior to immersion in the electrolyte, and rotating the plating barrel while the graphite particles are subjected to the current.

16(original). The method of Claim 15 wherein the plating barrel is a wall plating barrel with a +50 mesh opening wall.

17(currently amended). An intercalated graphite having an expansion volume of from between about 100 ml/g to 500 ml/g when subjected to [rapid] heating at [of] approximately 1000°C for from approximately 1 second to 10 minutes.

18(currently amended). An intercalated graphite having an expansion volume of from between about 500 ml/g to 2000 ml/g when subjected to [rapid] heating at approximately 1000°C for from approximately 1 second to 10 minutes.

19(original). The method of Claims 1 or 9 wherein the graphite particles are selected from the group consisting of natural, synthetic, vein, and amorphous graphite, all having a purity of between about 80% and 99.9% LOI.

IN THE SPECIFICATION:

Please amend the Summary of the Invention as follows:

SUMMARY OF THE INVENTION

This object, as well as others that will become apparent upon reference to the following drawings and detailed description, is provided by a method of preparing graphite intercalation compounds in which graphite particles are immersed in an aqueous electrolyte media comprising both an acid and an oxidizing agent. The immersed graphite particles are subjected to an anodic current and then removed from the electrolyte and rinsed with a solvent. The excess solvent and electrolyte is then removed from the graphite particles. In a preferred method, the electrolyte comprises between approximately 99 Vol.% and 50 Vol.% of 66 Wt.% H_2SO_4 and between approximately 1 Vol.% and 50 Vol.% of 40 Wt.% HNO_3 . The current density to which the immersed particles are subjected is between approximately 5mA and 2A per gram of graphite, and the immersed graphite particles are subjected to this current for between approximately 1 and 180 minutes. Optionally, the oxidizing agent may be selected from the group consisting of CrO_3 , KMnO_4 , $(\text{NH}_4)_2 \text{SO}_4$, PbO_2 , MnO_2 , MnO , H_2O_2 , and HClO_4 , instead of HNO_3 . Further, the graphite particles may be placed in a plating barrel which is immersed in the electrolyte and rotated while the graphite particles are subjected to the current. The resultant intercalated graphite has an expansion volume of from between about 100 ml/g to 2000 ml/g when heated [to] at 1000°C for from 1 second to 10 minutes.